UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

TERRESTRIAL COMMS LLC, Plaintiff v. **PERIXX COMPUTER GMBH,** Defendants	**Case No. 6:20-cv-00105** **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Terrestrial Comms LLC ("Plaintiff" or "Terrestrial") hereby asserts the following claims for patent infringement against Defendant Perixx Computer GmbH ("Defendant" or "Perixx"), and alleges, on information and belief, as follows:

THE PARTIES

1. Terrestrial is a limited liability company organized and existing under the laws of the Texas with its principal place of business at 17330 Preston Road, Suite 200D, Dallas, Texas 75252.

2. On information and belief, Defendant Perixx Computer GmbH is a Gesellschaft mit beschränkter Haftung (a form of limited liability company) organized under the laws of Germany. It has a principal place of business at Heerdter Landstrasse 189e, 40549 Dusseldorf, Germany. Perixx Computer GmbH can be served at this principal place of business.

JURISDICTION AND VENUE

3. This action arises under the patent laws of the United States, 35 U.S.C. § 1, *et seq*. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

4. Defendant has committed acts of infringement in this judicial district.

5. On information and belief, the Court has personal jurisdiction over Defendant because Defendant has committed, and continues to commit, acts of infringement in the state of Texas, has conducted business in the state of Texas, and/or has engaged in continuous and systematic activities in the state of Texas.

6. On information and belief, Defendant's instrumentalities that are alleged herein to infringe were and continue to be used, imported, offered for sale, and/or sold in the Western District of Texas.

7. Venue is proper in the Western District of Texas pursuant to 28 U.S.C. § 1400(b).

ACUSED PRODUCTS

8. Upon information and belief, Defendant makes, uses, imports, sells, and/or offers for sale the Perixx Wireless Ergonomic Split Keyboard and Vertical Mouse Combo, (collectively the "Accused Products").

9. Upon information and belief, Defendant Perixx encourages and supports the use of the Accused Products through its online support, advertising, and licensing relationships with resellers.

THE PATENTS-IN_SUIT

10. On August 12, 2008, United States Patent No. 7,411,552 (the "'552 patent"), entitled "Grounded Antenna for a Wireless Communication Device and Method," was duly and lawfully issued by the U.S. Patent and Trademark Office.

11. Terrestrial is the assignee and owner of the right, title and interest in and to the '552 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them.

12. On December 6, 2005, United States Patent No. 6,973,133 (the "'133 patent"), entitled "Integrated Radio Frequency Interface," was duly and lawfully issued by the U.S. Patent and Trademark Office.

13. Terrestrial is the assignee and owner of the right, title and interest in and to the '133 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them.

14. On February 11, 2003, United States Patent No. 6,519,290 (the "'290 patent"), entitled "Integrated Radio Frequency Interface," was duly and lawfully issued by the U.S. Patent and Trademark Office.

15. Terrestrial is the assignee and owner of the right, title and interest in and to the '290 patent, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them.

COUNT I – INFRINGEMENT OF U.S. PATENT NO. 7,411,552

16. Terrestrial repeats and realleges the allegations of paragraphs 1 through 15 as if fully set forth herein.

17. Claim 1 of the '552 Patent recites:

> 1. A wireless communication device, comprising:
>
> a substrate;
>
> a ground plane positioned on one side of the substrate;
>
> a wireless communication chip electrically connected to said ground plane

and proximate thereto;

an antenna having a first end and a second end, said first end electrically connected to said ground plane; and

said second end comprising an open circuit.

18. Without license or authorization and in violation of 35 U.S.C. § 271(a), Defendant has infringed and continues to infringe the '552 Patent by making, using, importing, offering for sale, and/or selling the Accused Products.

19. As exemplified below, the Accused Products are a wireless communication device that communicates via Bluetooth and Wi-Fi.

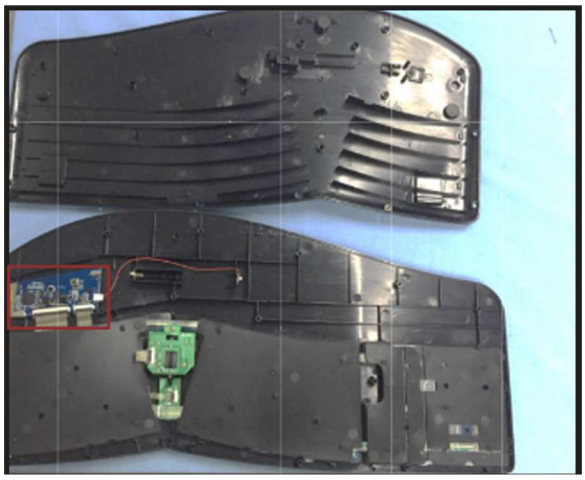
A wireless communication device, comprising:

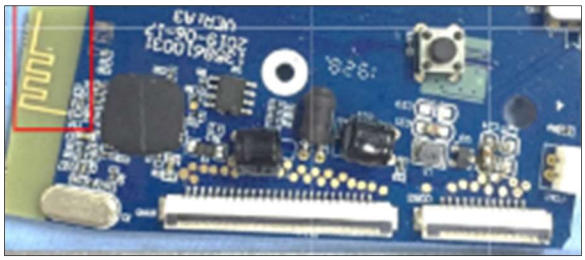
The Accused Products communicate via Wireless USB radio and Bluetooth.

https://perixx.com/lt_furniture_3/perixx-periduo-605-wireless-ergonomic-split-keyboard-and-vertical-mouse-combo-adjustable-palm-rest-and-membrane-low-profile-keys.html

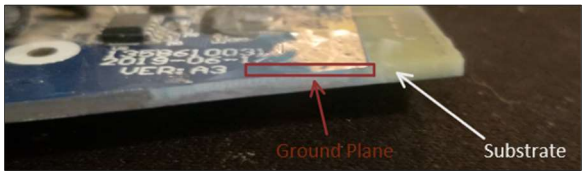
a substrate; a ground plane positioned on one side of the substrate;

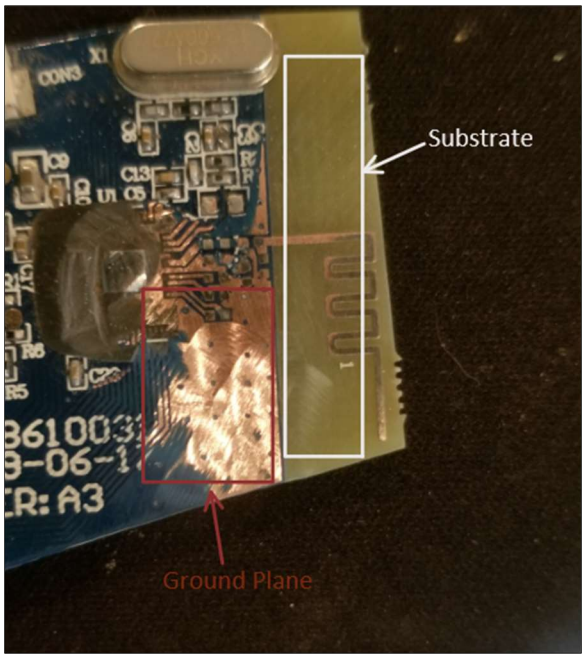
The chipset within the Accused Products comprise a substrate and a ground plane positioned on one side of that substrate:





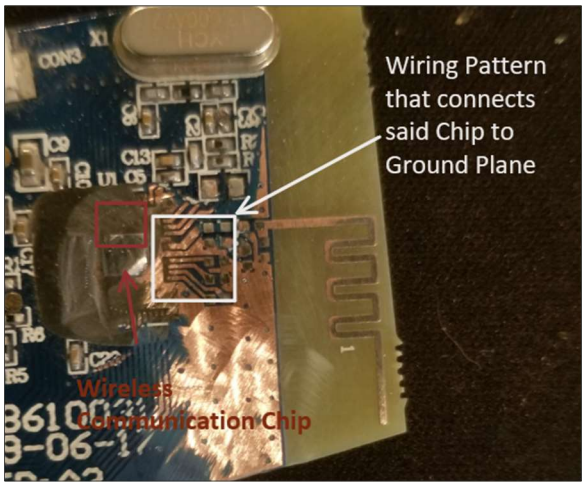
https://fccid.io/Z2G-PERIDUO-605/Internal-Photos/internal-photos-4428830





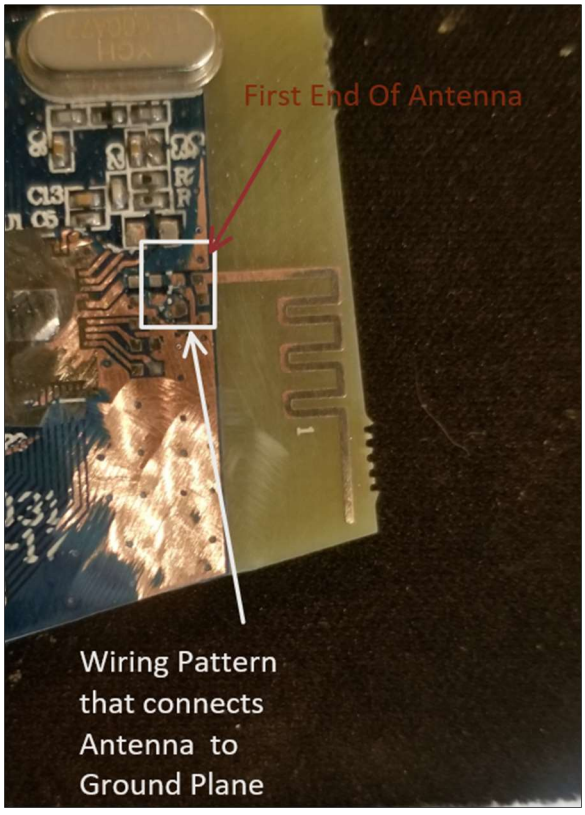
a wireless communication chip electrically connected to said ground plane and proximate thereto;

The Keyboard features a wireless communication chip that, through a wiring pattern, connects to said ground plane.

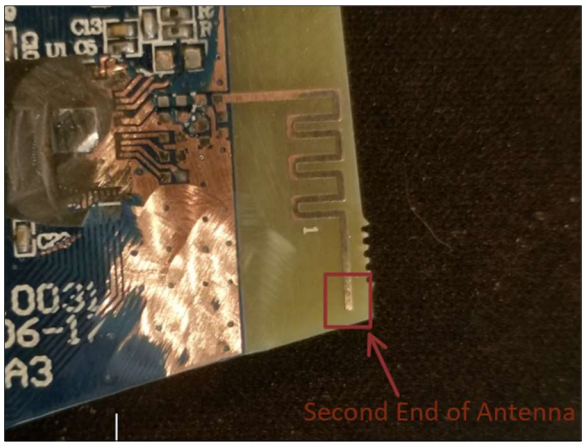


an antenna having a first end and a second end, said first end electrically connected to said ground plane; and

The Accussed Instrument comprises an antenna having two ends, one electrically connected to said ground plane and another comprising an open circuit:



said second end comprising an open circuit.



20. Terrestrial is entitled to recover from Defendant the damages sustained by Terrestrial as a result of Defendant's infringement of the ’552 Patent in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT II – INFRINGEMENT OF U.S. PATENT NO. 6,973,133

21. Terrestrial repeats and realleges the allegations of paragraphs 1 through 15 as if fully set forth herein.

22. Claim 1 of the ’133 Patent recites:

> 1. An apparatus comprising:
>
> a circuit configured to (i) communicate one or more Universal Serial Bus (USB) data signals via a wireless radio signal comprising a single frequency hopping sequence configured to support one or more USB devices and (ii) enumerate said one or more USB devices.

23. Without license or authorization and in violation of 35 U.S.C. § 271(a), Defendant has infringed and continues to infringe the ’133 Patent by making, using, importing, offering for sale, and/or selling the Accused Products.

24. As exemplified below, the Accused Products are an apparatus comprising a circuit configured to communicate USB data signals over a wireless frequency.

An apparatus comprising:

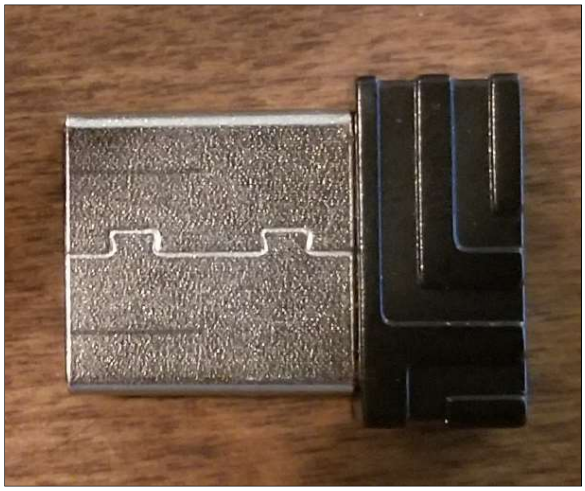
The Accused Products are an apparatus comprising a circuit configured to communicate USB data signals over a wireless frequency to one or more USB devices (e.g. keyboard and mouse) and to enumerate the USB devices.

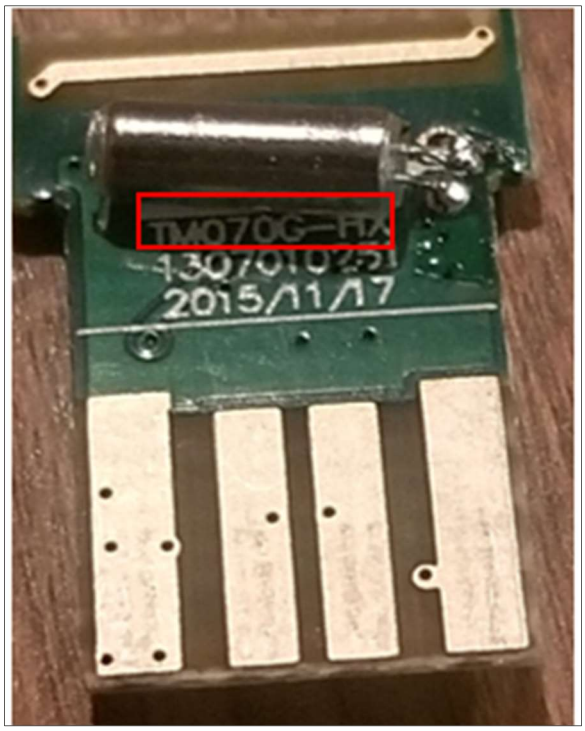
https://perixx.com/lt_furniture_3/perixx-periduo-605-wireless-ergonomic-split-keyboard-and-vertical-mouse-combo-adjustable-palm-rest-and-membrane-low-profile-keys.html

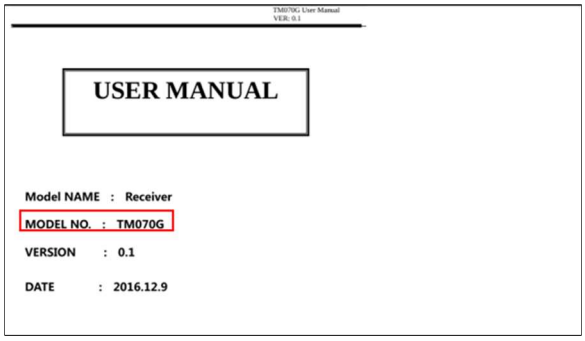
a circuit configured to (i) communicate one or more Universal Serial Bus (USB) data signals via a wireless radio signal comprising a single frequency hopping sequence configured to support one or more USB devices and

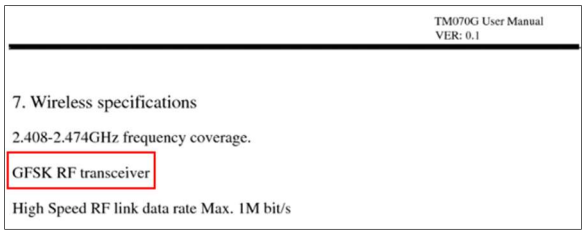
The Accused Products include a circuit configured to communicated one or more USB data signals to support one more USB devices.

The Accused Products include a USB Transceiver unit.



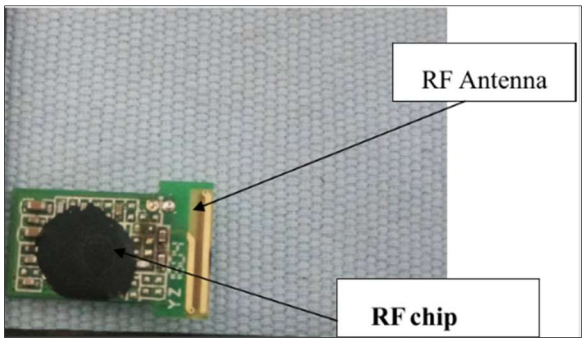






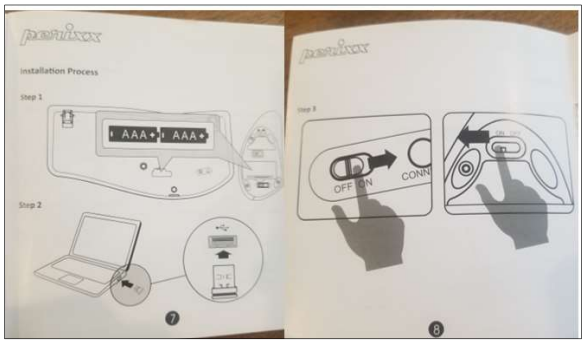
https://fccid.io/2AGLG-TM070G/Users-Manual/15-TM070G-UserMan-3393682

The circuit is a device configured to communicate via wireless radio frequency.



https://fccid.io/2AGLG-TM070G/Internal-Photos/09-TM070G-IntPho-3393676

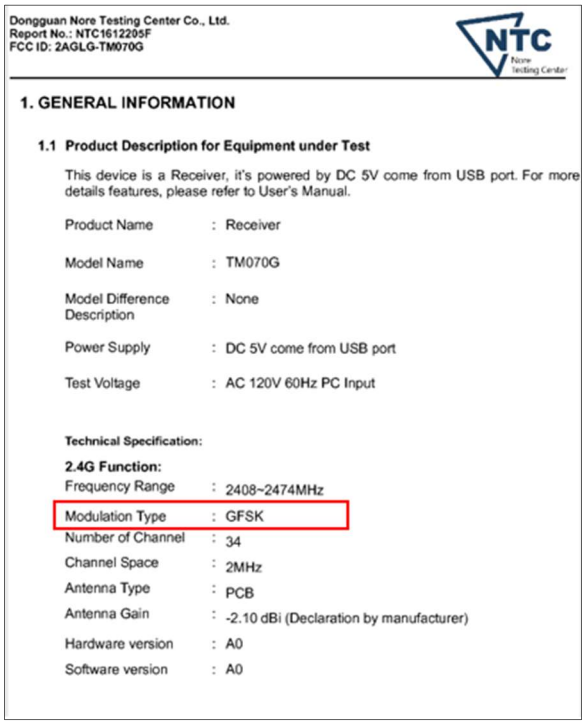
The circuit is operable to communicate with one or more USB devices.



The host device (e.g. computer) communicates data through the circuit (e.g. USB dongle) to a USB device (e.g. keyboard) via wireless radio signal.

As an example of this communication, after a user presses the "Caps Lock" key on a computer which hosts the circuit, then, when the user presses a key on the wireless keyboard the "Caps Lock" indicator on the wirelessly connected keyboard lights up.

The circuit operates on a frequency hopping sequence (e.g. Gaussian frequency-shift keying).



Dongguan Nore Testing Center Co., Ltd.
Report No.: NTC1612205F
FCC ID: 2AGLG-TM070G

NTC Nore Testing Center

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test

This device is a Receiver, it's powered by DC 5V come from USB port. For more details features, please refer to User's Manual.

Product Name	:	Receiver
Model Name	:	TM070G
Model Difference Description	:	None
Power Supply	:	DC 5V come from USB port
Test Voltage	:	AC 120V 60Hz PC Input

Technical Specification:

2.4G Function:

Frequency Range	:	2408~2474MHz
Modulation Type	:	GFSK
Number of Channel	:	34
Channel Space	:	2MHz
Antenna Type	:	PCB
Antenna Gain	:	-2.10 dBi (Declaration by manufacturer)
Hardware version	:	A0
Software version	:	A0

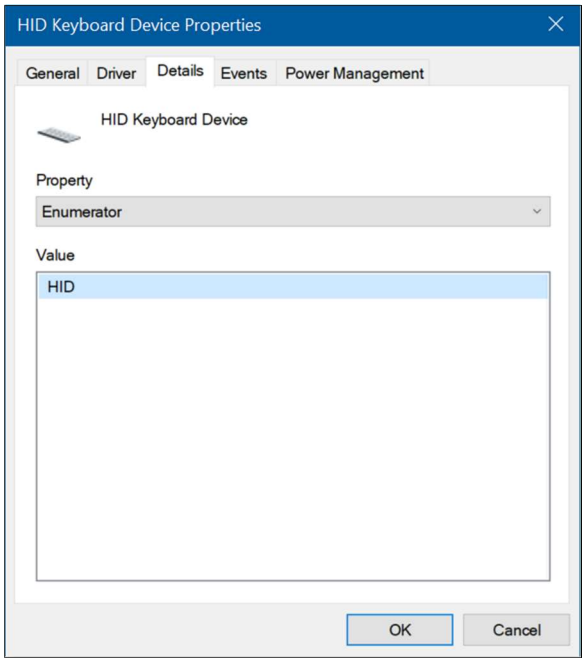
https://fccid.io/2AGLG-TM070G/Test-Report/14-TM070G-TestRpt-3393681

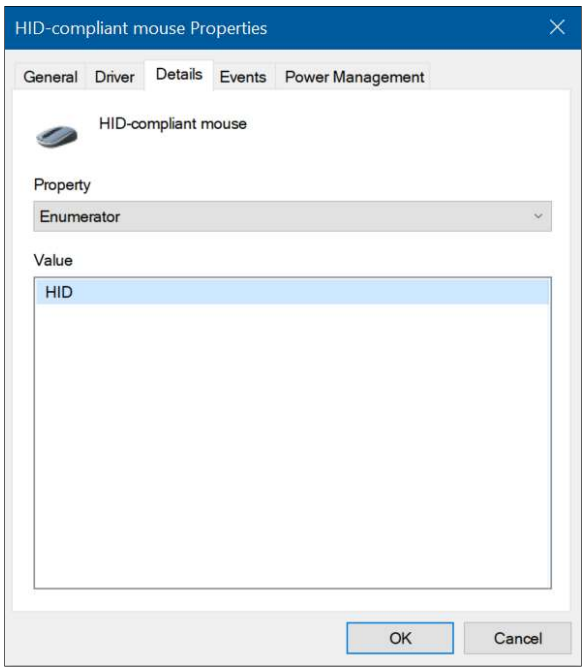
The circuit operates between 2408 and 2474 MHz.

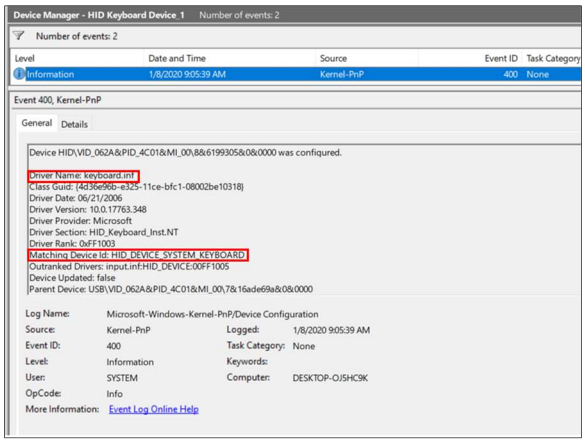
The frequency hopping sequence supports one or more USB devices (e.g. mouse and keyboard).

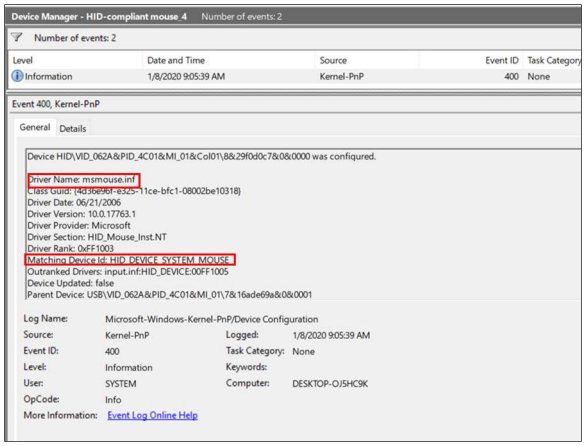
(ii) enumerate said one or more USB devices.

The Accused Products are operable to enumerate the USB devices.









"A hardware ID is a vendor-defined string that Windows uses to match a device to an INF file."

https://docs.microsoft.com/en-us/windows-hardware/drivers/install/hardware-ids

25. Terrestrial is entitled to recover from Defendant the damages sustained by Terrestrial as a result of Defendant's infringement of the '133 Patent in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT III – INFRINGEMENT OF U.S. PATENT NO. 6,519,290

26. Terrestrial repeats and realleges the allegations of paragraphs 1 through 15 as if fully set forth herein.

27. Claim 1 of the ’290 Patent recites:

1. An apparatus comprising:

a circuit configured to generate a wireless radio signal in response to one or more first Universal Serial Bus (USB) data signals,

wherein said wireless radio signal comprises a single frequency hopping sequence configured to support one or more USB peripheral wireless network devices, and

said circuit is configured to (i) generate said one or more first USB data signals in response to said wireless radio signal and

(ii) enumerate said one or more USB devices.

28. Without license or authorization and in violation of 35 U.S.C. § 271(a), Defendant has infringed and continues to infringe the ’290 Patent by making, using, importing, offering for sale, and/or selling the Accused Products.

29. As exemplified below, the Accused Products are a circuit configured to communicate USB data signals over a wireless frequency.

An apparatus comprising:

The Accused Products are an apparatus comprising a circuit configured to communicate USB data signals over a wireless frequency to one or more USB devices (e.g. keyboard and mouse) and to enumerate the USB devices.

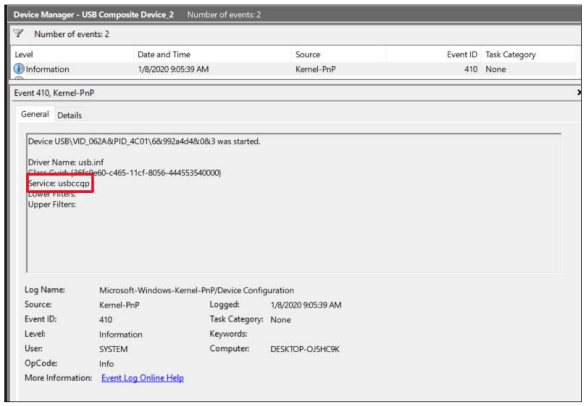
https://perixx.com/lt_furniture_3/perixx-periduo-605-wireless-ergonomic-split-keyboard-and-vertical-mouse-combo-adjustable-palm-rest-and-membrane-low-profile-keys.html

a circuit configured to generate a wireless radio signal in response to one or more first Universal Serial Bus (USB) data signals,

The Accused Products include a circuit configured to generate a wireless radio signal in response to one or more first Universal Serial Bus (USB) data signals.

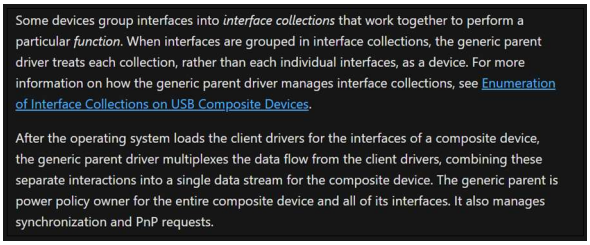
The first data signal below is communicated between the host device and the USB interface.

To set up the USB interface, the client drivers (provided by the host) communicate with the receiver to establish the protocol as described below:

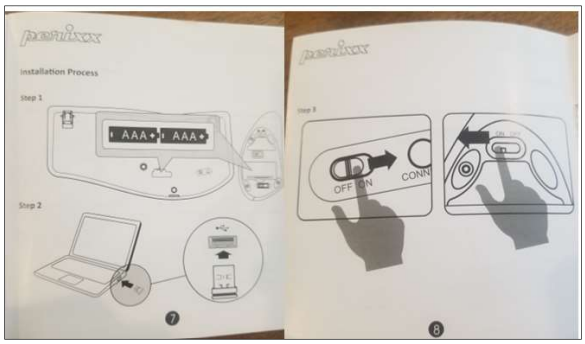


The service shown above is the USB generic parent driver.

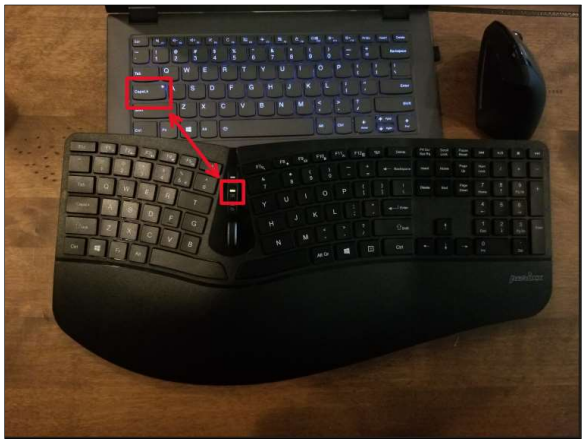
https://docs.microsoft.com/en-us/windows-hardware/drivers/usbcon/usb-common-class-generic-parent-driver



In response to said first data transaction the device is then registered to the computer and begins transmitting a wireless frequency device to connect to peripheral devices (a mouse and keyboard).

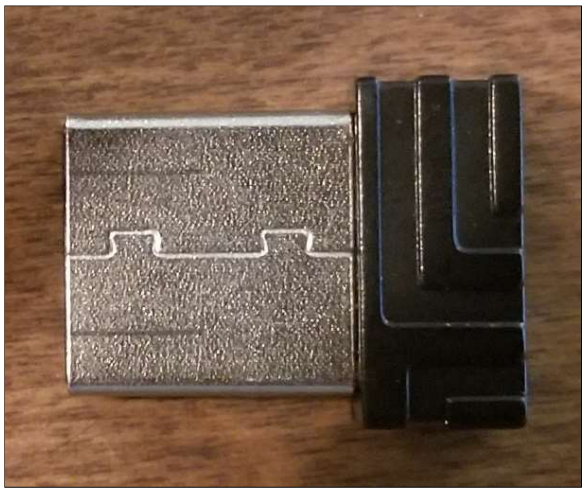


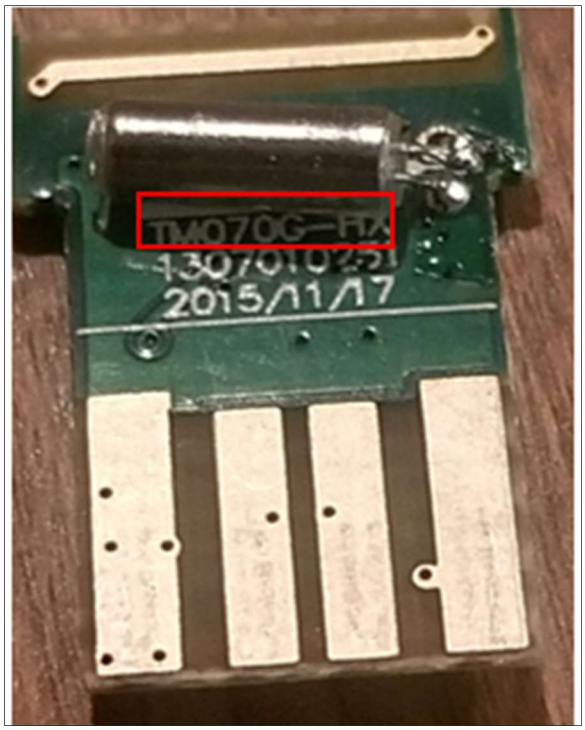
Then once the peripheral device is turned on, the USB Transceiver registers and communicates with said device.

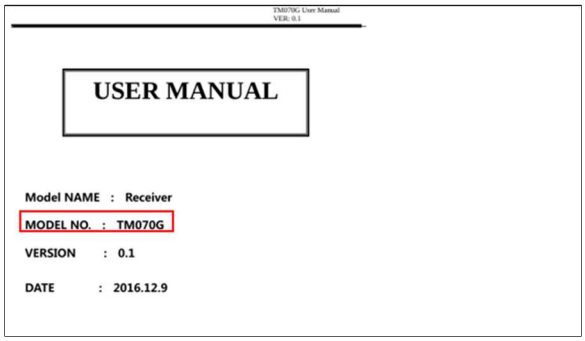


wherein said wireless radio signal comprises a single frequency hopping sequence configured to support one or more USB peripheral wireless network devices, and

The radio signal generated comprises a frequency hopping sequence to support one or more peripheral devices.



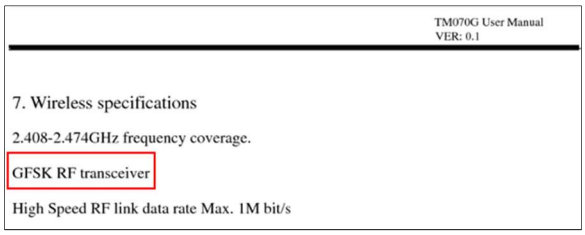




TM070G User Manual
VER: 0.1

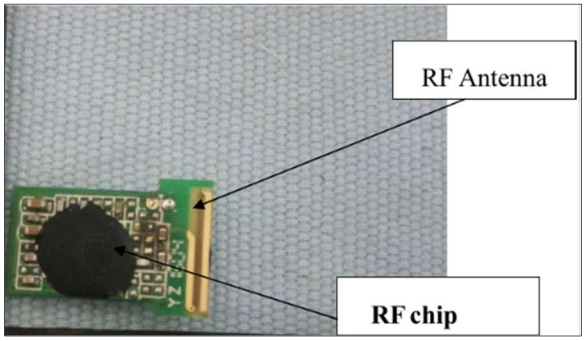
USER MANUAL

Model NAME : Receiver
MODEL NO. : TM070G
VERSION : 0.1
DATE : 2016.12.9



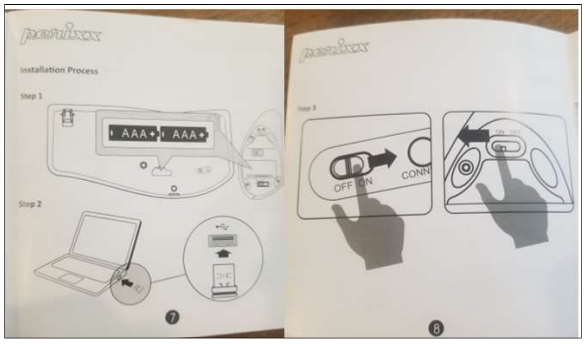
https://fccid.io/2AGLG-TM070G/Users-Manual/15-TM070G-UserMan-3393682

The circuit is a device configured to communicate via wireless radio frequency.

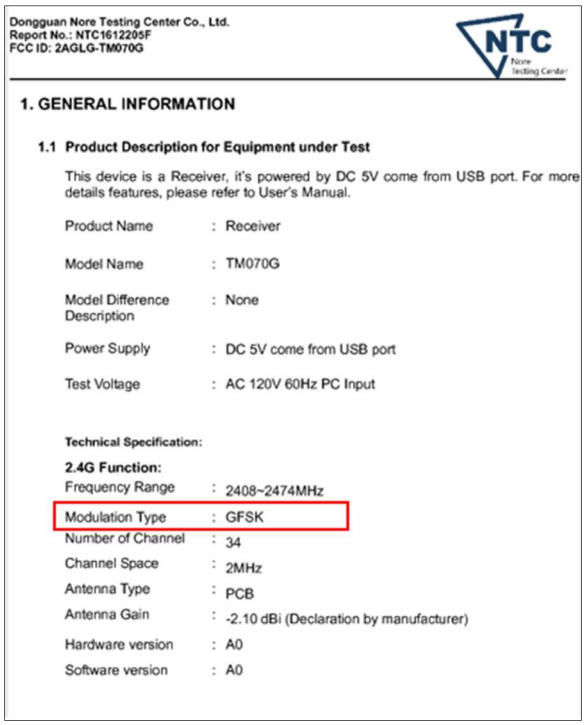


https://fccid.io/2AGLG-TM070G/Internal-Photos/09-TM070G-IntPho-3393676

The circuit is operable to communicate with one or more USB devices.



The circuit operates on a frequency hopping sequence (e.g. Gaussian frequency-shift keying).



Dongguan Nore Testing Center Co., Ltd.
Report No.: NTC1612205F
FCC ID: 2AGLG-TM070G

NTC Nore Testing Center

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test

This device is a Receiver, it's powered by DC 5V come from USB port. For more details features, please refer to User's Manual.

Product Name	:	Receiver
Model Name	:	TM070G
Model Difference Description	:	None
Power Supply	:	DC 5V come from USB port
Test Voltage	:	AC 120V 60Hz PC Input

Technical Specification:

2.4G Function:

Frequency Range	:	2408~2474MHz
Modulation Type	:	GFSK
Number of Channel	:	34
Channel Space	:	2MHz
Antenna Type	:	PCB
Antenna Gain	:	-2.10 dBi (Declaration by manufacturer)
Hardware version	:	A0
Software version	:	A0

https://fccid.io/2AGLG-TM070G/Test-Report/14-TM070G-TestRpt-3393681

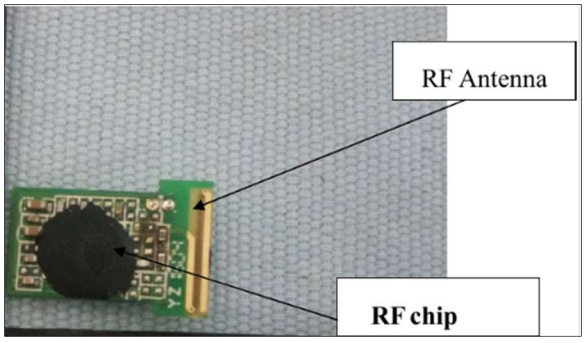
The circuit operates between 2408 and 2474 MHz.

The frequency hopping sequence supports one or more USB peripheral devices (e.g. mouse and keyboard).

said circuit is configured to (i) generate said one or more first USB data signals in response to said wireless radio signal and

The device generates a USB data signal in response to said wireless radio signal.

The circuit is a device configured to communicate via wireless radio frequency (e.g. 2.4 GHz wireless radio).



The circuit is operable to communicate with one or more USB devices (e.g. Mouse and Keyboard).

The keyboard communicates via a wireless frequency:

General Description of EUT	
Product Name:	Full Size Wireless Ergonomic Keyboard with Vertical Mouse
Trade Name:	PERIXX
Model No.:	PERIDUO-605
Adding Model(s):	/
Rated Voltage:	DC1.5V*2
Power Adapter Model:	/
Note: The test data is gathered from a production sample, provided by the manufacturer.	
Technical Characteristics of EUT	
Frequency Range:	2408-2474 MHz
Max. Field Strength:	95.57dBuV/m
Modulation:	FSK
Quantity of Channels:	34
Channel Separation:	2MHz
Antenna Type:	PCB Antenna
Antenna Gain:	-5.35dBi

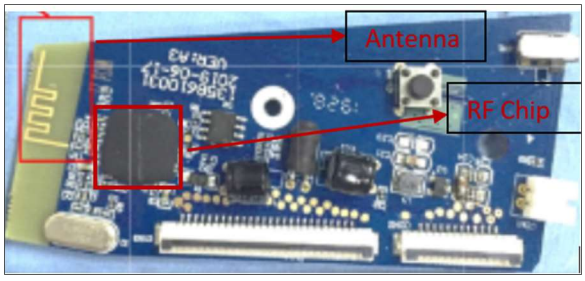
https://fccid.io/Z2G-PERIDUO-605/Test-Report/test-report-4428835

The transmitter in the wireless keyboard sends a data signal via a radio frequency to the USB device which receives the radio signals and converts that data into a USB data signal which is then communicated to the host device.

Equipment Class

Equipment Class: DXX - Part 15 Low Power Communication Device Transmitter

https://fccid.io/Z2G-PERIDUO-605

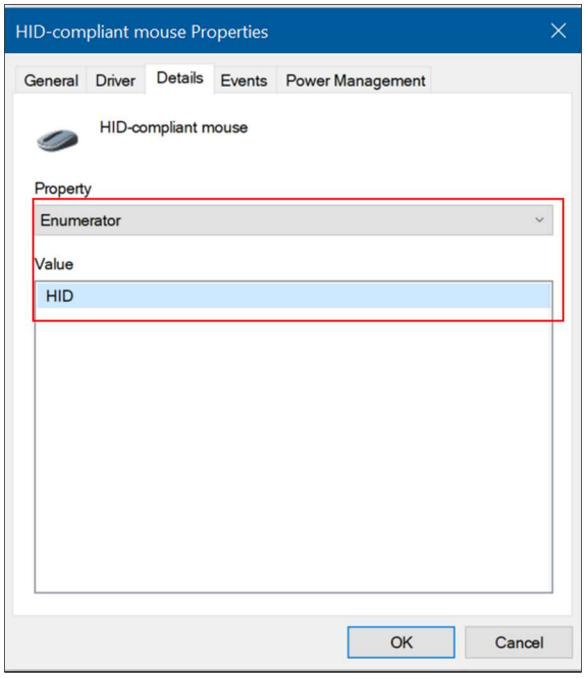


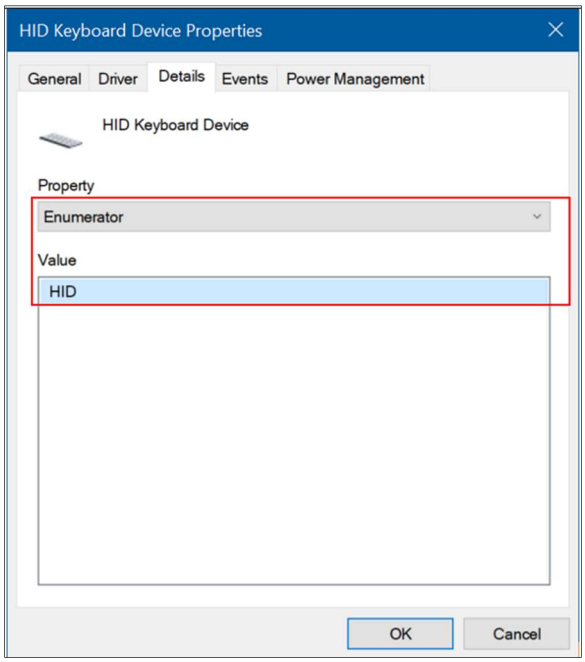
https://fccid.io/Z2G-PERIDUO-605/Internal-Photos/internal-photos-4428830

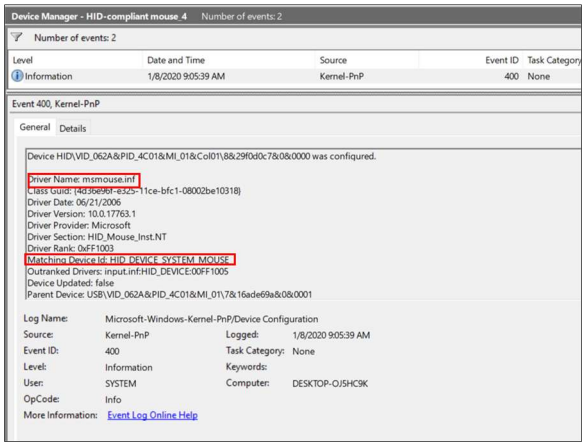
When the caps lock light when pressed on the wireless keyboard turns on the caps lock light on the host computers keyboard.

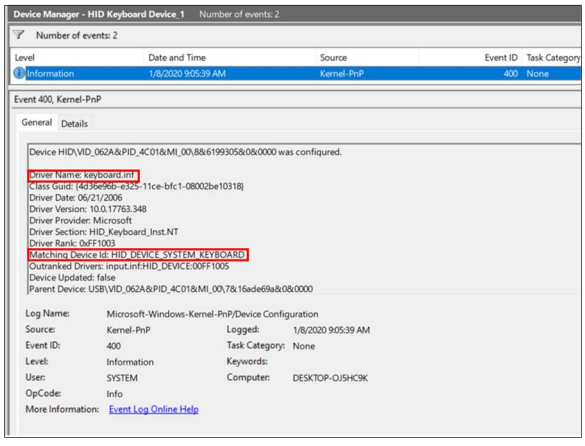
(ii) enumerate said one or more USB devices.

The Accused Products are operable to enumerate the USB devices.









"A hardware ID is a vendor-defined string that Windows uses to match a device to an

INF file."

https://docs.microsoft.com/en-us/windows-hardware/drivers/install/hardware-ids

30. Terrestrial is entitled to recover from Defendant the damages sustained by Terrestrial as a result of Defendant's infringement of the '290 Patent in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

PRAYER FOR RELIEF

WHEREFORE, Terrestrial requests that this Court enter judgment against Defendant as follows:

A. An adjudication that Defendant has infringed the '552 Patent, the '133 Patent, and the '290 Patent;

B. An award of damages to be paid by Defendant adequate to compensate Terrestrial for Defendant's past infringement of the '552 Patent, the '133 Patent, and the '290 Patent, and any continuing or future infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;

C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Terrestrial's reasonable attorneys' fees; and

D. An award to Terrestrial of such further relief at law or in equity as the Court deems just and proper.

JURY DEMAND

Plaintiff demands trial by jury, Under Fed. R. Civ. P. 38.

Dated: February 11, 2020

Respectfully Submitted

/s/ Raymond W. Mort, III

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ATTORNEYS FOR PLAINTIFF